

Thermal Oxidizer Optimization



Dual Economizers

- ▶ New temperature control algorithms for the thermal oxidizer maintain better firebox temperature control.
- ▶ New methods vary temperature with conditions rather than using one setpoint.
- ▶ Lower excess oxygen levels reduce fuel consumption.
- ▶ New heat exchange systems preheat feed streams and recover waste heat.
- ▶ Dual economizers convert stack heat losses into increased steam generation.

Benefits

- ▶ Saves over \$1.6 million annually in fuel costs.
- ▶ Improves thermal efficiency of heat recovery system from 78% to 84%.
- ▶ Reduces stack heat losses by 9 MMBtu per hour.
- ▶ Reduces vibration levels due to better flue gas flow arrangement.
- ▶ Dual economizers produce additional steam valued at \$470,000 a year.



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